

REMARKS

Claims 1-38 are pending, of which claim 38 has been previously withdrawn from consideration. Claims 1, 2, 3, 5, and 11-12 have been amended herein. Reconsideration of the application is hereby requested.

Title of the Claimed Invention

The Examiner has requested a new title, stating that the as-filed title is "not descriptive". Applicants politely disagree, however, in the interest of compact prosecution, have provided a new title herein.

Claim Objections

The Examiner has objected to claims 1 and 2, stating that "the limitation 'liquid handling-system' seems like it should be written as 'liquid-handling system.'" Applicants have amended claims 1 and 2 to read "liquid-handling system." Claims 5 and 11-12 have similarly been amended. Applicants respectfully request withdrawal of this objection.

The Examiner has objected to dependent Claim 3 for reciting a range outside of the range of independent Claim 1. The dependency of Claim 3 has been amended herein. Applicants respectfully submit that the Examiner's concerns have been addressed and request withdrawal of this objection.

Drawings

The Examiner has objected to the drawings of Figures 1, 2, 3, and 5. Replacement drawings have been provided herewith. Applicants respectfully request withdrawal of this objection.

Claim Rejections under 35 U.S.C. §103

The Mehta – Kricka Combination

The Examiner has rejected claims 1-5, and 8-37 as allegedly being unpatentable over Mehta (US 6,426,615) in view of Kricka et al. (US 5,744,366). Applicants respectfully traverse this rejection for at least the following reasons.

As a preliminary matter, Applicants assert that the Examiner has not established *prima facie* obviousness. A *prima facie* case of obviousness requires the Examiner to cite to a reference which (a) discloses all the elements of the claimed invention, (b) suggests or motivates one of skill in the art to combine or modify those elements to yield the claimed combination, and (c) provides a reasonable expectation of success should the claimed combination be carried out (See, e.g., *Northern Telecom Inc. v. Datapoint Corp.*, 15 USPQ2d 1321, 1323 (Fed. Cir. 1990); and *In re Dow Chemical Co.*, 837 F.2d 469, 5 USPQ2d 1529 (Fed. Cir. 1988)).

Failure to establish **any one** of these three requirements precludes a finding of a *prima facie* case and, without more, entitles Applicant to allowance of the claims at issue. As stated in *In re Dow Chemical Co.*, 5 USPQ2d 1529 (Fed. Cir. 1988):

The consistent criterion for determination of obviousness is whether the prior art would have suggested to one of ordinary skill in the art that this process should be carried out and would have a reasonable likelihood of success, viewed in the light of the prior art Both the suggestion and the expectation of success must be founded in the prior art, not in the applicant's disclosure.

Applicants assert that cited references, either alone or in combination, do not teach the presently claimed devices or methods.

Specifically, Mehta describes a particle analyzer that measures the size and number of particles suspended in a fluid using the aperture impedance principle (see column 4, lines 34-38), wherein two liquid containers are in liquid and electrical communication with one another only through an aperture to establish a constricted electrical path. See column 6, line 67 through column 7, line 7. "The constricted electrical path is generated by feeding current (or applying a voltage) through active electrodes [located in each container] and then measuring the resulting variation in voltage (or current) as particles pass through the constricted electrical path." See column 8, lines 4-8. "The aperture size is normally chosen such that the majority of particles preferably lie within 2% to 60% of the aperture diameter." See column 8, lines 11-14. "When a particle enters the constricted electrical path, the resistance between the measuring electrodes

risers if the resistivity of the particle is more than that of the fluid in which it is suspended." See column 8, lines 14-18. "The only path for the passage of the fluid sample is through the aperture." See column 7, lines 3-5. "The suspension is preferably diluted to a point where the particles suspended in the fluid medium are relatively scattered. This ensures that during particle measurement, there will be a reduced possibility of two particles being present in the sensing zone [of the aperture] simultaneously." See column 6, lines 54-57.

However, as noted by the Office, Mehta fails to disclose the length of the conduit. In addition, Mehta fails to disclose forming the conduit at least in part by an elastomeric material. Accordingly, Mehta does not teach all the elements of the claimed invention. To rectify this deficiency, the Office has cited Kricka for its description of a conduit of from about 0.1 to 1,000 μm and its description of use of elastomeric materials.

However, Applicants respectfully maintain that the Office's reliance on Kricka is misplaced. Specifically, Kricka discloses a cell *motility* analyzer. In contrast to device of Mehta which aims to impede the movement of particles from one liquid container to another, Kricka emphasizes that "[t]o maximize the utility of the devices of the invention, it is important to ensure that any cell movement observed in the flow channel is due to the inherent motility of the cell being assessed. Hence, *fluid flow properties in the device should neither impede nor enhance* the movement of cells within the flow channel." (column 11, lines 37-42).

In other words, Kricka teaches that, to ensure that fluid flow properties are *neither impeded nor enhanced*, a conduit of from about 0.1 to 1,000 μm should be used. Kricka does not teach or suggest how to design a conduit for use in impeding cell motility. Rather Kricka teaches directly against the notion.

As cited in MPEP §2143.01, "[i]f proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification." *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)). Accordingly, combining Mehta with Kricka would defeat the intended purpose of the device of Kricka, measurement of motility. Likewise, combining Kricka with Mehta would defeat the intended purpose of the device of Mehta, impedance of particle movement by way of passage of individual particles suspended in a liquid by passing the liquid, along with individual particles, through a constricted path (the aperture).

Because the cited art, either alone or in combination, does not teach or suggest the claimed invention, Applicants respectfully request that the rejection under 35 U.S.C. §103(a) be withdrawn.

The Mehta – Kricka – Anderson Combination

The Examiner has rejected claims 6 and 7 under 35 U.S.C. §103(a) as being unpatentable over Mehta in view of Kricka, and in further view of Anderson et al (US 6,168,948). Applicants respectfully traverse this rejection for the following reasons.

Mehta and Kricka have been discussed above. Anderson is cited as describing a system for genetic analysis wherein the surface of the conduit have been functionalized to reduce or enhance adsorption of the particles to the surface.

However, Anderson does not overcome the deficiencies of the Mehta – Kricka combination. Accordingly, Applicants respectfully request withdrawal of this rejection.

CONCLUSION

Applicants believe the claims are now in condition for allowance for the foregoing reasons. Accordingly, Applicants respectfully request consideration of the claims on their merits. If, in the Examiner's opinion, a telephone conference may be helpful, Applicants' counsel may be contacted at the number below.

Respectfully submitted,

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